

The area of most intense and longest-sustained storm energy was embraced between latitudes 30° and 50° N., and longitudes 170° W. and 155° E. Here the Aleutian Low largely concentrated, and into this vast expanse of depressed barometer poured the most of the moderate disturbances which originated in Asia and in Asiatic waters. Here on no less than 10 days winds of major intensity—force 11 to 12—were developed, beside whole gales on several days, and fresh to strong gales almost daily throughout the month. Here also individual pressure readings were made at times that were practically an inch lower than the minima of about 29 inches observed at either Dutch Harbor or St. Paul in the heart of the normal winter low pressure region. Between longitudes 180° and 170° W. winds of storm to hurricane force were encountered on the 2d, 4th, 10th, 13th, 16th, and 17th, and west of 180° on the 1st, 2d, 4th, 24th, 25th, and 30th. The first four days of January formed an exceptionally stormy period, the severe weather covering an immense area. From the 13th to 17th another period of sustained severity occurred, this one irregularly affecting half the ocean, but concentrating its greatest energy between the thirtieth and fortieth parallels north of Midway Island. After the 25th the weather moderated in east longitudes, although on the 29th and 30th wind forces of 10 or 11 were reported from small areas at steaming distances of a day or two east of Japan.

Strong northeast monsoons of force 7 to 9 were reported on several days along the entire China coast.

In the Gulf of Tehuantepec northerns of force 8 to 9 were reported by seamen on the 3d, 4th, 5th, 23d, 24th, 30th, and 31st. At the port of Salina Cruz Tehuantepecers of force 9 were reported on the 3d, and of force 10 on the 4th, 5th, 10th, 23d, and 30th.

The unwonted pressure alinement over the Pacific caused the prevailing wind at Honolulu to be from the north for the first time on record for any month since

the establishment of the station in 1904. The maximum velocity was at the rate of 35 miles an hour from the southwest on the 15th, during the prevalence of the low pressure wave which covered the greater part of the ocean.

Fog occurred on only two or three days over the western part of the ocean. Over the eastern part fog was scattered, but formed on three to five days in some localities along the northern and central routes. On the coast of the United States there was a considerable decrease from that of December, the occurrence off middle California falling from about 50 to about 20 per cent, and from about 25 per cent to 10 or lower north and south of this central coastal area.

PAMPERO

The following account of a pampero which occurred on January 1, 1930, at the mouth of the Parana River, Paraguay, was furnished to the Weather Bureau by Mr. W. A. Farrell, second officer and observer of the British tanker *San Macedonio*, Capt. J. W. Tozer, Rio de Janeiro to San Pedro, via Buenos Aires:

January 1, 1930, 4 p. m., civil time, whilst proceeding up the Parana River about 10 miles from where it enters the River Plate, the sky was observed to be very heavy with thundershowers to the west. Thunder and lightning were observed for one hour before the pampero struck the ship.

The pilot advised all awnings to be taken in, and at 4 p. m. with a rush and a roar from the SSE. the wind and rain came at hurricane force, it being so strong that it steered the ship toward the weather bank of the river (this being a tanker with the funnel aft, the funnel acted as a sail and caught most of the wind above the trees). The engines were put full astern and the anchor let go, and the ship swung across the river head to wind, there being plenty of room at this part of the stream. It continued to blow for quarter of an hour with the temperature at 66° , which was a drop of 22° in as many minutes, the barometer remaining steady at 29.52. The wind then eased off, and the barometer slowly rose, but fairly heavy rain continued until midnight. Through the rain was seen a glorious orange sunset low down on the horizon. By morning the sky was perfectly clear and the barometer had risen to 29.60, the ship being now with an ESE. breeze, force 4.—W. E. H.

CLIMATOLOGICAL TABLES

DESCRIPTION OF TABLES AND CHARTS

Table 1 gives the data ordinarily needed for climatological studies for about 184 Weather Bureau stations making simultaneous observations at 8 a. m. and 8 p. m. daily, seventy-fifth meridian time, and for about 31 others making only one observation. The altitudes of the instruments above ground are also given.

Beginning January 1, 1928, movement and velocity of the wind are printed as recorded by the 3-cup anemometer which has replaced the 4-cup pattern.

Table 2 gives, for about 37 stations of the Canadian Meteorological Service, the means of pressure and temperature, total precipitation, depth of snowfall, and the respective departures from normal values except in the case of snowfall. The sea-level pressures have been computed according to the method described by Prof. F. H. Bigelow in the REVIEW of January, 1902, 30: 13-16.

CHART I.—*Temperature departures.*—This chart presents the departures of the monthly mean surface temperatures from the monthly normals. The shaded portions of the chart indicate areas of positive departures and unshaded portions indicate areas of negative departures. Generalized lines connect places having approximately equal departures of like sign. This chart of monthly surface temperature departures in the United States was first published in the MONTHLY WEATHER REVIEW for July, 1909, but smaller charts appear in W. B. Bulletin II for 1873 to June, 1909, inclusive.

CHART II.—*Tracks of centers of ANTYCLONES; and*
CHART III.—*Tracks of centers of CYCLONES.* The Roman numerals show the chronological order of the centers. The figures within the circles show the days of the month; the letters *a* and *p* indicate, respectively, the observations at 8 a. m. and 8 p. m., seventy-fifth meridian time. Within each circle is also given (Chart II), the last three figures of the highest barometric reading, or (Chart III) the lowest reading reported at or near the center at that time, in both cases as reduced to sea level and standard gravity. The inset map of Chart II shows the departure of monthly mean pressure from normal and the inset of Chart III shows the change in mean pressure from the preceding month.

The use of a new base map for Charts II and III is begun with this issue. Instead of showing the 12-hour movement of cyclones and anticyclones, only the 24-hour movement is shown.

CHART IV.—*Percentage of clear sky between sunrise and sunset.*—The average cloudiness at each Weather Bureau station is determined by numerous personal observations between sunrise and sunset. The difference between the observed cloudiness and 100 is assumed to represent the percentage of clear sky, and the values thus obtained are the basis of this chart. The chart does not relate to the nighttime.

CHART V.—*Total precipitation.*—The scales of shading with appropriate lines show the distribution of the monthly precipitation according to reports from both regular and cooperative observers. The inset on this

chart shows the departure of the monthly totals from the corresponding normals.

CHART VI.—Isobars at sea level, average surface temperatures, and prevailing wind directions.—The pressures have been reduced to sea-level and standard gravity by the method described by Prof. Frank H. Bigelow in the REVIEW for January, 1902, 30:13-16. The pressures have also been reduced to the mean of the 24 hours by the application of a suitable correction to the mean of 8 a. m. and 8 p. m. readings at stations taking two observations daily, and to the 8 a. m. or the 8 p. m. observation, respectively, at stations taking but a single observation. The diurnal corrections so applied will be found in the Annual Report of the Chief of the Weather Bureau, 1900-1901, volume 2, Table 27, pages 140-164.

The sea-level temperatures are now omitted and average surface temperatures substituted. The isotherms can

not be drawn in such detail as might be desired, for data from only the regular Weather Bureau stations are used.

The prevailing wind directions are determined from hourly observations at the great majority of the stations. A few stations determine their prevailing directions from the daily or twice-daily observations only.

CHART VII.—Total snowfall.—This is based on the reports from regular and cooperative observers and shows the depth in inches of the snowfall during the month. In general, the depth is shown by lines connecting places of equal snowfall, but in special cases figures also are given. This chart is published only when the snowfall is sufficiently extensive to justify its preparation. The inset of this chart, when included, shows the depth of snow on the ground at the end of the month.

CHARTS VIII, IX, etc.—North Atlantic Weather maps of particular days.

CONDENSED CLIMATOLOGICAL SUMMARY

In the following table are given for the various sections of the climatological service of the Weather Bureau the monthly average temperature and total rainfall; the stations reporting the highest and lowest temperatures, with dates of occurrence; the stations reporting the greatest and least total precipitation; and other data as indicated by the several headings.

The mean temperature for each section, the highest and lowest temperatures, the average precipitation, and the greatest and least monthly amounts are found by using all trustworthy records available.

The mean departures from normal temperatures and precipitation are based only on records from stations that have 10 or more years of observations. Of course, the number of such records is smaller than the total number of stations.

Condensed climatological summary of temperature and precipitation by sections, January, 1930

Section	Temperature								Precipitation									
	Section average °F.	Departure from the normal °F.	Monthly extremes				Section average In.	Departure from the normal In.	Greatest monthly				Section average In.	Departure from the normal In.	Least monthly			
			Station	Highest	Date	Station			Station	Amount	Station	Amount			Station	Amount		
Alabama	46.0	+0.1	Citronelle	82	8	Riverton	1	1 18	4.45	-0.61	Robertsdale	7.78	Decatur	1.75				
Arizona	41.6	+1.3	2 stations	79	4	Alpine	-18	21	2.09	+0.89	Pinal Ranch	6.79	Mohawk	0.07				
Arkansas	33.8	-7.3	3 stations	74	11	Lead Hill	-28	22	9.16	+5.06	Arkadelphia	16.31	Ozark	3.21				
California	41.9	-2.3	do	81	12	Twin Lakes	-19	11	5.30	-0.16	Cuyamaca	16.82	Greenland Ranch	0.04				
Colorado	14.7	-9.5	5 stations	65	15	Pearl	-54	17	1.24	+0.44	Cumbres	8.59	Las Animas	0.00				
Florida	62.2	+3.3	2 stations	89	12	Bluff Springs	16	19	3.52	+0.72	Niceville	8.62	Moore Haven	0.49				
Georgia	48.2	+1.6	3 stations	81	12	Blue Ridge	8	19	5.00	+0.76	Montezuma	6.74	Resaca	3.18				
Idaho	12.6	-9.8	Lapwai	66	4	Felt	-46	17	1.52	-0.61	2 stations	3.20	Richfield	0.30				
Illinois	20.7	-6.1	Cairo	64	1	Mount Carroll	-35	22	4.69	+2.43	Grand Chain	10.50	Oregon	1.59				
Indiana	25.4	-3.2	Rome	66	1	3 stations	-24	18	6.38	+3.33	Elliston	8.98	Whiting	1.72				
Iowa	10.5	-8.0	Keokuk (No. 2)	58	5	Decorah	-37	22	1.33	+0.26	Keokuk	2.51	West Bend	0.41				
Kansas	17.9	-11.9	Oakley	69	5	Valley Falls	-31	22	0.93	+0.30	Columbus	4.29	Norton	0.03				
Kentucky	34.6	-0.8	Williamsburg	75	9	Murray	-20	18	4.85	+0.50	Mayfield	11.10	Pikeville	0.48				
Louisiana	49.2	-2.0	2 stations	82	17	Plain Dealing	-3	18	7.83	+3.10	Logansport	11.68	Alexandria	5.18				
Maryland-Delaware	34.1	+1.5	3 stations	75	9	Chewsville, Md.	-17	19	2.75	-0.62	Mechanicsville, Md.	4.31	Picardy, Md.	0.56				
Michigan	17.7	-2.1	Muskegon	55	6	Dukes	-33	26	2.14	+0.32	Monroe	4.48	Bad Axe	0.62				
Minnesota	1.4	-7.1	Worthington	50	4	Warroad	-49	9	0.61	-0.08	New Ulm	2.05	Redby	T.				
Mississippi	45.4	-1.6	4 stations	80	19	2 stations	-2	18	5.37	+0.35	Austin	14.15	Pontotoc	2.37				
Missouri	20.8	-9.7	Campbell	73	4	Neosho	-31	22	4.51	+2.47	Caruthersville	13.58	Tarkio	0.71				
Montana	3.5	-15.0	St. Ignatius	55	4	Grant	-52	17	0.55	-0.41	Hebgen Dam	3.14	4 stations	T.				
Nebraska	11.2	-10.3	4 stations	67	13	Gordon	-39	17	0.77	+0.22	Falls City	2.58	2 stations	0.20				
Nevada	25.4	-5.1	Beatty	70	1	San Jacinto	-37	21	1.40	+0.31	Lewers Ranch	5.49	Thorne	0.18				
New England	23.4	+1.1	Colchester, Conn.	65	9	Van Buren, Me.	-33	23	2.66	-0.73	Nantucket, Mass.	4.42	Bethlehem, N. H.	0.85				
New Jersey	31.7	+1.9	Belleplain	72	9	Layton	-14	20	2.92	-0.67	Pleasantville	4.03	Culvers Lake	1.80				
New Mexico	28.7	-5.3	Rodeo	75	1	Dulce	-41	22	0.63	+0.09	Aspen Grove Ranch	4.28	4 stations	0.00				
New York	24.6	+2.0	2 stations	67	9	Stillwater Reservoir	-34	26	3.12	+0.21	High Market	6.82	Gabriels	1.15				
North Carolina	43.3	+2.2	Kinston	82	10	Banners Elk	-3	24	3.85	-0.27	Willard	7.10	Parker	1.28				
North Dakota	-1.9	-6.8	Powers Lake	41	1	Eckman	-43	9	0.29	-0.25	Bowman	1.41	3 stations	0.00				
Ohio	27.8	-0.1	Portsmouth	72	9	Faulding	-18	23	4.69	+1.80	West Manchester	8.15	Canfield	1.17				
Oklahoma	24.9	-13.4	4 stations	75	1	Watts	-27	18	2.40	+1.01	Watts	6.31	Boise City	0.20				
Oregon	21.7	-10.9	2 stations	65	128	Danner	-52	21	3.18	-1.52	Willow Creek	10.28	Andrews	0.53				
Pennsylvania	29.2	+1.4	Hanover	72	9	Lancaster	-24	19	2.25	-1.08	Emporium	4.74	Hyndman	0.70				
South Carolina	46.9	+1.4	Garnett	80	2	Caesar's Head	10	17	4.46	+0.89	Ferguson	7.50	Charleston	2.37				
South Dakota	6.0	-9.9	2 stations	61	14	2 stations	-36	17	0.53	-0.07	Mенно	1.85	2 stations	T.				
Tennessee	38.1	-0.6	Etowah	77	9	Halls	-12	18	4.99	+0.25	Union City	13.29	Clinton	1.61				
Texas	39.1	-9.4	Rio Grande	88	18	Miami	-15	10	1.81	-0.02	Lufkin	8.76	3 stations	0.00				
Utah	18.8	-6.4	St. George	65	3	Woodruff	-44	21	1.73	+0.44	Silver Lake	7.00	Myton	0.32				
Virginia	38.3	+2.5	Emory	79	1	Dale Enterprise	-13	20	2.67	-0.66	Wallacetown	4.87	Mount Weather	0.99				
Washington	18.4	-12.1	3 stations	59	11	Toppenish	-32	21	2.48	-2.91	Big Four	10.74	Omak	0.06				
West Virginia	34.0	+1.9	Moorefield	80	9	Ryan	-13	19	1.86	-1.98	Pickens	3.60	Upper Tract	0.58				
Wisconsin	8.9	-5.0	Milwaukee County Airport	50	7	Hatfield	-45	22	1.16	-0.07	Sheboygan	2.46	Park Falls	0.30				
Wyoming	5.4	-13.7	Yoder	65	4	Riverside	-57	17	0.82	-0.04	Snake River	2.99	Deaver	0.11				
Alaska [Dec.]	5.8	-0.4	Seward	65	21	Rampart	-59	31	1.70	-0.87	Yukutat	13.12	Shaktoolik	0.04				
Hawaii	68.3	-0.2	Olaa Mill	89	20	Volcano Observatory	43	14	10.26	+0.97	Eke	31.20	Puu Kihe	1.63				
Porto Rico	73.2	-0.1	Mayaguez	91	24	Guineo Reservoir	50	8	6.60	+3.02	Rio Grande	30.76	Mona Island	1.26				

¹ Other dates also.

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TABLE 1.—Climatological data for Weather Bureau stations, January, 1930

District and station	Elevation of instruments		Pressure						Temperature of the air												Precipitation						Snow, sleet, and ice on ground at end of month						
			Barometer above sea level	Thermometer above ground	Anerometer above ground	Station, reduced to mean of 24 hours	Sea level, reduced to mean of 24 hours	Departure from normal	Mean max. + mean min. + 2	Departure from normal	Maximum	Date	Mean maximum	Minimum	Date	Mean minimum	Greatest daily range	Mean wet thermometer	Mean temperature of the dew-point	Mean relative humidity	Total	Departure from normal	Days with 0.01, or more	Total movement	Prevailing direction	Maximum velocity	Clear days	Partly cloudy days	Cloudy days	Average cloudiness, tenths			
	Ft.	Ft.	Ft.	In.	In.	In.	In.	° F.	° F.	° F.	° F.	° F.	° F.	° F.	° F.	%	In.	In.	Miles	In.	In.	Miles per hour	Date				0-10 In.	11-20 In.	Total snowfall In.				
New England																																	
Eastport	76	67	85	30.10	30.18	+0.18	22.7	+2.3	52	8	30	-2	26	16	30	22	17	76	2.14	-1.8	14	7,920	sw.	36	ne.	18	5	9	17	7.4	14.8	4.9	
Greenville, Me.	1,070	6	28.95	30.18			14.3	45	8	25	-19	27	4	38	26	25	17	76	2.59	-1.2	13	5,563	se.	29	ne.	10	7	7	14	6.2	21.0		
Portland, Me.	103	82	117	30.10	30.23	+1.18	24.3	+1.9	50	2	32	-9	26	17	31	22	17	76	2.80	-1.2	13	5,484	ne.	21	ne.	9	11	4	16	6.5	11.7	8.0	
Concord	289	70	79	29.81	30.22	+1.17	23.1	+1.5	59	8	33	-10	27	14	35	25	16	76	3.46	-1.5	10	3,370	rw.	19	nw.	12	2	6	23	8.4	10.1	7.7	
Burlington	403	11	48	29.74	30.21	+1.20	20.2	+1.4	51	8	28	-9	26	12	32	25	16	76	2.56	+0.8	14	9,222	s.	39	s.	12	2	6	23	7.0	10.8	7.6	
Northfield	876	12	60	30.21	30.16	+1.16	18.6	+3.4	55	7	29	-13	27	8	34	26	22	70	86	2.26	-0.1	11	4,963	s.	24	s.	7	7	7	17	7.0	7.7	0.8
Boston	125	106	165	30.08	30.22	+1.27	31.8	+3.9	64	8	39	3	17	24	26	28	70	83	2.30	-0.8	11	5,536	nw.	27	nw.	10	7	7	17	7.0	10.1	2.5	
Nantucket	12	90	30.20	30.20	+1.16	35.0	+3.7	57	9	41	14	26	29	25	25	28	70	84	4.42	+0.6	13	10,363	sw.	47	ne.	30	8	8	15	6.3	8.0	1.5	
Block Island	26	44	48	30.18	30.20	+1.13	33.7	+2.7	58	8	40	26	26	28	27	31	80	83	2.23	-0.6	10	11,959	w.	44	n.	30	8	8	15	6.3	8.0	0.8	
Providence	160	215	251	30.04	30.23	+1.17	30.8	+3.6	62	8	38	8	26	24	24	28	71	82	2.62	-1.1	9	7,164	nw.	37	nw.	10	7	7	17	6.6	10.0	3.4	
Hartford	159	122	130	30.04	30.23	+1.16	29.2	+3.7	59	7	36	7	26	24	24	28	72	83	2.51	-1.4	10	5,612	n.	28	n.	10	6	6	15	6.8	10.0	5.6	
New Haven	106	74	153	30.12	30.26	+1.17	30.8	+2.6	58	8	38	10	26	24	26	28	74	86	-1.1	10	5,612	n.	28	n.	10	6	6	15	6.8	10.0	5.6		
Middle Atlantic States							34.8	+2.5										76	2.78	-0.5										6.9			
Albany	97	107	115	30.12	30.24	+1.17	26.1	+3.0	57	8	34	-6	24	19	27	24	20	77	1.77	-0.6	10	5,087	s.	23	s.	7	13	5	13	5.8	8.8	3.0	
Binghamton	871	10	84	29.24	30.20	+1.12	26.1	+2.0	59	7	34	0	20	18	25	25	70	2.58	-1.1	14	4,337	nw.	24	sw.	4	3	6	22	8.0	7.7	1.0		
New York	314	414	454	29.88	30.24	+1.14	33.6	+2.7	61	7	35	-7	20	17	37	23	77	1.08	-0.7	15	9,979	w.	46	nw.	5	5	6	20	7.9	5.0	1.8		
Bellefonte	1,050	5	36	29.06	30.21		25.8		61	7	35		19	27	37	23	77	1.08	-0.7	15	9,979	w.	22	nw.	5	5	6	20	7.9	5.0	1.8		
Harrisburg	374	94	104	29.84	30.27	+1.17	30.2	+1.2	60	8	37	5	20	23	35	27	71	2.80	-0.6	10	3,804	nw.	37	nw.	10	8	8	21	7.0	3.9	0.8		
Philadelphia	114	123	167	30.13	30.26	+1.13	35.6	+3.0	69	9	42	11	19	29	37	32	69	3.15	-0.2	8	9,382	nw.	22	n.	10	8	8	21	7.2	12	2.2		
Reading	325	81	98	29.89	30.26		31.2	+1.1	67	9	38	2	20	24	27	28	75	2.29	-1.3	8	3,660	n.	22	n.	10	8	8	21	7.2	6.1	0.5		
Scranton	805	111	129	30.34	30.24	+1.15	28.8	+2.2	59	7	36	-1	19	21	31	26	77	1.20	-1.8	13	4,453	sw.	22	n.	10	8	8	16	7.4	6.1	0.5		
Atlantic City	52	37	172	30.19	30.25	+1.14	36.4	+3.0	63	10	43	1	19	30	35	34	81	3.75	+0.3	13	11,069	nw.	48	ne.	30	8	8	15	6.3	7.0	4.8		
Cape May	17	13	49				36.5	+2.4	61	2	43	19	30	35	33	31	84	3.50	+0.1	11	11,069	n.	22	n.	10	8	8	15	8.9	9.5	3.0		
Sandy Hook	22	10	55	30.21	30.24		33.0		59	9	39	11	19	27	33	30	87	2.81	-1.2	11	9,807	nw.	40	nw.	18	7	5	19	7.1	2.4	0.8		
Trenton	190	155	183	30.03	30.24		33.0	+2.5	67	9	40	8	19	29	30	25	75	2.73	-0.6	8	6,191	nw.	32	nw.	10	9	8	15	6.0	7.0	3.1		
Baltimore	123	100	215	30.12	30.25	+1.13	36.2	+2.4	64	8	43	11	19	29	37	32	88	2.66	-0.8	8	6,033	s.	36	nw.	10	9	8	15	6.7	14.1	9.0		
Washington	112	62	85	30.13	30.26	+1.13	36.6	+2.6	70	9	43	6	31	28	33	32	86	2.85	-0.7	11	3,681	s.	26	n.	10	8	8	15	6.7	14.0	9.5		
Cape Henry	18	8	54	30.21	30.23		43.6	+3.4	74	14	51	24	19	36	31	40	84	4.48	+1.3	14	9,073	n.	44	n.	10	8	8	15	6.8	3.0	1.5		
Lynchburg	681	153	188	29.50	30.27	+1.14	39.2	+1.7	74	9	48	7	31	30	35	34	80	2.77	-0.7	14	4,269	n.	24	nw.	18	8	8	15	6.1	12.0	6.0		
Norfolk	91	170	205	30.15	30.26	+1.13	44.0	+3.4	74	9	52	21	31	36	40	34	82	4.09	+1.0	14	8,295	n.	35	n.	20	8	8	15	6.8	4.1	2.6		
Richmond	144	11	52	30.10	30.27	+1.13	39.6	+1.7	75	10	48	11	31	31	40	35	79	4.25	+1.0	14	4,833	n.	27	sw.	2	8	8	15	6.2	9.6	5.0		
Wytheville	2,304	49	55	27.78	30.25	+1.11	35.6	+2.6	71	9	45	8	19	26	32	31	77	1.65	-1.4	13	4,042	w.	24	nw.	3	8	8	15	6.5	15.0	5.8		
South Atlantic States							48.2	+2.7									79	3.49	-0.1											6.2			
Asheville	2,253	70	84	27.61	30.25	+1.10	39.8	+4.4	71	9	49	11	19	31	32	34	74	1.48	-1.6	9	6,436	se.	27	n.	23	9	10	12	6.1	8.7	4.0		
Charlotte	779	55	62	29.38	30.24	+0.09	44.0	+2.8	73	10	53	5	31	29	40	35	80	3.77	-0.1	14	3,442	ne.	20	ne.	29	3	12	16	6.9	8.0	4.2		
Greensboro	886	5	56	29.27	30.25		39.7		72	10	50	5	31	29	40	35	81	3.03	-0.1	13	5,195	sw.	30	ne.	30	8	8	15	6.5	6.5	0.0		
Hatteras	111	5	50	30.20	30.21	+0.07	53.6	+3.5	74	14	58	31	31	44	27	47	86	5.02	+0.6	14	9,611	n.	50	n.	30	8	8	15	6.2	3.0	2.0		
Raleigh	376	103	110	29.83	30.25	+1.12	43.9	+2.8	75	15	63	19	35	35	39	35	76	2.95	-0.7	14	4,647	ne.	24	nw.	15	9	7	15	6.1	6.0	0.0		
Wilmington	78	81	90	30.15	30.24	+1.10	48.8	+2.3	75	13	70	29	31	40	49	43	87	3.35	-0.1	14	4,203	n.	25	ne.	29	6	11	13	6.0	6.5	0.0		
Charleston	48	11	92	30.17	30.22	+0.07	51.2	+1.3	73	19	59	29	30	44	33	42	87	3.05	-0.1	14	5,426	n.	30	ne.	29	7	11	13	6.0	6.5	0.0		
Columbia, S. C.	351	41	57	29.85	30.24	+0.09	48.0	+2.0	76	15	54	23	30	35	38	37	87	3.05	-0.1	14	5,094	n.	29	ne.	29	7	11	13	6.0	6.5	0.0		
Due West	111	10	55	29.46	30.26		44.8		76	10	53	22	19	36	27	39	87	4.18	-0.7	13	5,311	n.	20	ne.	29	7	11	13	6.1	9.0	0.2		
Greenville, S. C.	1,039	139	149	29.20	30.22	+0.06	49.6	+2.6	78	9	58	26	34	40	43	39	87	5.31	+1.4	13	3,247	nw.	20	ne.	29	7	11	13	6.1	9.0	0.2		
Augusta	182	62	70	30.02	30.22	+0.06	53.0	+1.6	77	22	82	30	45	27	47	44	79	3.59	+0.8	10	7,443	n.	30	s.	15	10	6	15	5.9	T. 0.0			
Savannah	65	150	194	30.14	30.20	+0.04	57.0	+1.6	78	28	65																						

TABLE 1.—Climatological data for Weather Bureau stations, January, 1930—Continued

District and station	Elevation of instruments				Pressure				Temperature of the air												Precipitation				Wind				Maximum velocity				Average cloudiness, tenths									
	Barometer above sea level		Thermometer above ground		Anemometer above ground		Station, reduced to mean of 24 hours		Sea level, reduced to mean of 24 hours		Departure from normal		Mean maximum + mean min. + ₂		Departure from normal		Mean maximum		Mean minimum		Mean minimum daily range		Mean relative humidity		Total		Departure from normal or more		Total movement		Prevailing direction		Miles per hour		Clear days		Partly cloudy days		Cloudy days		Snow, sleet, and ice on ground at end of month	
	Ft.	Ft.	Ft.	In.	In.	In.	In.	° F.	° F.	° F.	° F.	° F.	° F.	° F.	° F.	° F.	° F.	%	77	In.	4.76	+1.0	Miles	Days with 0.01 or more	Direction	Date	Clear days	In.	In.	Total snowfall												
Ohio Valley and Tennessee																																										
Chattanooga	762	190	215	29.42	30.26	+0.10	41.8	+0.6	70	9	50	10	23	33	26	36	28	64	2.30	-3.0	10	5,983	se.	29	nw.	3	10	7	14	5.9	4.7	0.0										
Knoxville	905	102	111	29.16	30.25	+1.0	40.3	+1.5	74	9	50	10	19	31	33	35	31	78	2.19	-2.5	13	4,155	sw.	30	s.	2	7	11	13	6.3	5.3	0.0										
Memphis	309	76	97	29.81	30.25	+0.9	36.2	-4.7	69	1	43	-2	18	29	27	33	29	78	12.12	+7.3	14	5,301	n.	21	n.	17	9	6	16	6.4	6.2	0.0										
Nashville	546	168	191	29.67	30.28	+1.2	36.6	-2.0	69	9	45	-2	18	29	32	34	29	75	3.82	-0.9	13	7,140	s.	35	s.	8	10	4	17	6.2	1.4	0.0										
Lexington	989	193	230	29.16	30.27	+1.4	32.6	-0.3	70	9	40	-6	18	25	31	30	26	78	4.44	+0.3	18	9,428	s.	33	s.	7	8	16	6.5	2.6	0.0											
Louisville	525	188	234	29.66	30.27	+1.4	32.5	-1.9	66	9	40	-8	18	25	31	30	26	78	5.95	+2.0	18	7,603	s.	31	s.	1	9	6	16	6.0	3.7	0.0										
Evansville	431	76	116	29.79	30.28	+1.4	29.8	-3.7	62	1	37	-10	18	23	26	27	23	75	6.20	+2.5	16	6,210	s.	29	sw.	6	6	8	19	7.2	6.9	2.2										
Indianapolis	822	194	230	30.30	30.23	+1.1	24.8	-3.6	59	1	32	-15	18	17	23	23	19	79	7.34	+4.4	17	7,402	sw.	28	w.	3	7	7	17	7.0	4.3	1.7										
Royal Center	736	11	55	29.38	30.32		20.2		52	6	28	-19	18	12	28	3.87	+1.6	16	6,987	w.	28	s.	6	8	6	16	6.5	6.2	0.0													
Terre Haute	575	96	129	29.59	30.24		24.0		59	1	32	-15	18	16	26	22	20	85	8.23	+5.5	18	6,474	s.	30	s.	2	4	18	6.7	5.2	T.											
Cincinnati	627	11	51	29.83	30.24	+1.2	30.8	+0.5	62	1	39	-10	18	23	25	28	25	82	4.25	+0.8	18	5,671	s.	22	sw.	24	9	4	18	6.7	5.2	T.										
Columbus	822	179	222	29.31	30.22	+1.1	29.2	+0.6	61	14	37	-8	18	22	30	27	24	81	4.86	+1.8	17	7,243	s.	37	nw.	3	6	5	20	7.5	4.9	0.5										
Dayton	899	137	173	29.23	30.23		28.4	-1.1	60	14	36	-11	18	21	25	26	23	81	5.27	+2.0	18	6,903	s.	29	sw.	1	5	7	19	7.3	4.9	T.										
Elkins	1,047	59	67	28.11	30.26	+1.4	33.2	+2.8	70	1	44	-7	19	23	43	29	25	76	1.55	-2.2	18	3,845	w.	26	w.	3	3	8	20	8.0	6.2	0.3										
Parkersburg	637	77	82	29.58	30.26	+1.4	34.4	+1.9	69	9	43	0	19	26	33	30	26	75	2.16	-1.4	18	4,196	s.	22	w.	3	4	5	22	8.1	7.4	0.0										
Pittsburgh	842	353	410	29.28	30.22	+1.1	31.8	+1.1	63	7	40	0	19	24	35	29	24	74	1.67	-1.4	17	7,427	s.	29	nw.	4	4	6	21	7.7	6.9	0.5										
Lower Lake Region																																										
Buffalo	767	247	280	29.30	30.17	+1.0	24.6	0.0	56	14	32	1	26	18	27	22	20	83	6.23	+2.9	25	12,869	w.	64	w.	15	3	9	19	7.8	20.0	4.2										
Canton	448	10	61	29.67	30.18		19.6	+3.3	51	8	29	-23	26	10	38	3.98	+1.5	18	7,459	sw.	31	s.	15	2	12	17	7.5	14.4	6.2													
Ithaca	836	5	100	29.26	30.20		24.0	-0.3	57	7	32	-6	23	16	25	22	18	78	1.66	-0.5	14	7,591	nw.	30	s.	1	2	5	24	8.5	7.2	0.6										
Oswego	335	76	91	29.81	30.19	+1.2	25.2	+1.3	55	8	32	-4	26	18	27	23	19	78	3.15	+0.2	18	6,276	s.	30	nw.	25	0	6	25	8.8	14.7	5.5										
Rochester	523	86	102	29.60	30.20	+1.3	26.2	+1.6	57	7	33	-1	26	19	27	23	19	75	2.92	0.0	18	6,415	sw.	30	w.	25	1	9	21	8.4	6.2	1.5										
Syracuse	596	65	79	29.54	30.21	+1.4	26.3	+3.3	58	7	34	1	26	19	29	2.74	-0.3	19	5,062	s.	21	sw.	25	1	9	21	8.1	6.0	2.5													
Erie	714	130	166	29.39	30.19	+1.1	26.2	-0.6	59	1	34	-1	18	19	27	24	20	78	3.89	+1.1	19	5,824	s.	37	sw.	24	3	8	20	7.8	8.2	3.0										
Cleveland	762	267	337	29.34	30.19	+1.0	27.6	-1.1	62	14	36	-3	18	20	30	24	21	79	5.01	+2.5	21	9,436	s.	50	nw.	3	3	7	21	7.7	5.5	1.3										
Sandusky	629	5	67	29.49	30.21	+1.2	25.4	-0.9	58	14	33	-9	18	26	25	21	81	5.41	+3.2	18	6,392	sw.	29	nw.	3	4	7	20	7.3	5.3	1.7											
Toledo	628	208	243	29.50	30.21	+1.2	23.7	-2.1	53	7	31	-10	18	17	24	22	18	86	6.62	+2.5	19	9,274	sw.	37	w.	15	10	8	15	6.8	7.3	3.0										
Fort Wayne	856	113	124	29.24	30.20	+1.2	22.2	-4.7	53	6	29	-15	18	15	25	21	18	86	6.62	+3.3	19	6,601	sw.	26	w.	3	5	6	20	7.7	7.8	4.4										
Detroit	730	218	268	29.36	30.19	+1.1	22.8	-1.6	50	7	29	-7	18	16	24	22	19	88	3.85	+1.8	21	7,235	sw.	34	sw.	25	2	13	16	7.6	16.5	3.1										
Upper Lake Region																																										
Alpena	609	13	92	29.45	30.15	+1.1	17.8	-1.3	44	7	24	-8	26	11	23	16	13	82	1.36	-0.5	13	7,749	sw.	30	se.	11	3	10	18	7.3	10.3	8.6										
Escanaba	612	54	60	29.45	30.15	+1.0	11.7	-3.7	39	1	19	-18	18	4	28	10	8	85	0.94	-0.6	7	6,384	nw.	25	ne.	14	14	5	12	5.3	10.8	16.0										
Grand Haven	632	54	89	29.44	30.17	+1.0	21.2	-3.1	47	1	24	-3	18	14	21	19	90	3.18	+0.8	19	8,706	s.	39	w.	25	2	3	28	8.9	22.4	9.0											
Grand Rapids	707	70	87	29.38	30.18	+1.2	21.4	-3.1	50	6	27	-4	18	16	25	20	17	82	3.21	+0.9	17	4,397	sw.	20	nw.	28	1	8	22	8.1	37.3	8.0										
Houghton	668	64	99	29.36	30.13	+0.8	10.2	-4.5	37	5	16	-23	18	4	28	2.65	-0.2	21	6,692	w.	29	w.	19	0	5	26	8.9	26.9	22.0													
Lansing	878	6	49	29.19	30.17		18.2	-4.2	46	7	26	-13	18	11	25	18	17	96	2.53	+0.7	22	6,725	sw.	19	w.	28	7	17	20	7.0	22.0	5.8										
Ludington	637	60	68	29.42	30.15		20.2	-2.9	42	1	25	0	18	15	16	19	16	82	2.04	-0.1	21	8,120	s.	40	sw.	14	3	10	18	7.7	22.0	5.8										
Marquette	734	77	111	29.29	30.14	+1.0																																				

TABLE 1.—Climatological data for Weather Bureau stations, January, 1930—Continued

District and station	Elevation of instruments		Pressure		Temperature of the air										Precipitation		Wind				Average cloudiness, tenths		Snow, sleet, and ice on ground at end of month						
	Barometer above sea level	Thermometer above ground	Ft.	Ft.	In.	In.	° F.	° F.	° F.	° F.	Mean maximum	Max. + mean min. + 2	Departure from normal	Mean maximum	Mean minimum	Greatest daily range	Mean wet thermometer dew-point	Mean temperature of the day-point	Total	Total movement	Prevailing direction	Maximum velocity	Clear days	Partly cloudy days	Cloudy days	Total snowfall			
	Aneroid	Station, reduced to mean of 24 hours																	Miles	Days with 0.01 or more	Direction	Date	In.	In.					
<i>Northern Slope</i>																													
Billings.....	3,140	5					7.9																						
Havre.....	2,505	11	44	27.51	30.34	+0.24	2.6	-10.3	44	3.12	-31	16	-6	38	2	0	90	0.18	-0.6	8	5,209	nw.	17	6	8	7	6.2		
Helena.....	4,110	87	112	26.86	30.33	+1.18	4.0	-16.2	48	4.13	-32	17	-5	54	2	-4	71	0.77	-0.1	16	3,589	sw.	23	31	7	8	1.0		
Kalispell.....	2,073	48	56	27.04	30.31	+1.19	5.4	-15.0	46	4.14	-23	17	-5	44	2	0	80	0.80	-0.9	9	3,156	nw.	28	ne.	11	5.0	8.4		
Miles City.....	2,371	48	55	27.62	30.35	+1.23	3.6	-10.9	43	3.12	-31	16	-5	47	2	0	86	0.35	-0.3	10	3,391	nw.	20	23	8	14	5.6		
Rapid City.....	3,259	50	58	26.67	30.33	+1.23	8.7	-13.3	57	4.20	-33	17	-2	56	6	0	71	0.64	+0.2	12	4,365	nw.	31	ne.	5	8	4.9		
Cheyenne.....	6,088	84	101	23.89	30.18	+1.13	13.0	-12.5	54	5.23	-30	17	3	37	4	10	83	0.55	+0.5	14	7,961	w.	10	14	6.0	13.0	2.2		
Lander.....	5,372	60	68	24.58	30.29	+1.17	3.0	-15.3	49	5.15	-39	17	-9	37	0	-3	67	0.54	0.0	5	2,219	e.	37	sw.	1	5	4.5		
Sheridan.....	3,790	10	47	26.13	30.28	+1.17	5.6	-18	54	3.18	-37	17	-6	56	4	-2	72	0.69	-0.2	12	2,606	nw.	22	sw.	8	13	5.6		
Yellowstone Park.....	6,241	11	48																						7.0	6.0			
North Platte.....	2,821	11	51	27.17	30.29	+1.17	10.6	-12.3	60	4.22	-26	17	-1	47	7	3	78	0.51	+0.1	9	4,247	w.	20	n.	6	14	5		
<i>Middle Slope</i>							19.0	-11.5									74	1.35	+0.5							5.1			
Denver.....	5,292	106	113	24.66	30.17	+1.12	16.9	-12.9	57	5.28	-20	17	6	38	13	7	68	0.48	+0.1	11	4,369	n.	19	w.	27	16	11		
Pueblo.....	4,685	80	86	25.24	30.14	+0.09	18.8	-11.1	62	4.32	-17	18	6	46	14	7	65	0.51	+0.2	8	3,773	nw.	32	w.	5	18	11		
Concordia.....	1,392	50	58	28.74	30.31	+1.17	16.4	-10.0	58	4.25	-13	17	8	39	13	7	72	0.68	+0.1	9	5,682	n.	25	sw.	4	11	9		
Dodge City.....	2,509	11	51	27.53	30.28	+1.17	19.6	-9.4	58	4.31	-12	17	8	37	15	11	76	0.32	-0.1	7	6,245	nw.	28	sw.	4	15	9		
Wichita.....	1,358	139	158	28.75	30.26	+1.13	19.0	-12.3	53	5.27	-12	18	11	35	17	13	79	1.24	+0.5	8	7,942	n.	40	s.	4	10	10		
Broken Arrow.....	765	11	56	29.40	30.26	+1.13	23.5	-1.6	65	1.32	-12	18	15	33	3	3	53	+1.5	12	8,451	n.	33	s.	6	8	6			
Oklahoma City.....	1,214	10	47	28.92	30.27	+1.16	23.2	-13.2	63	1.32	-9	17	14	36	20	17	81	2.69	+1.5	9	6,750	n.	25	nw.	9	10	5		
<i>Southern Slope</i>							34.0	-8.8									68	0.37	-0.3							5.7			
Abilene.....	1,738	10	52	28.35	30.23	+1.14	33.0	-11.7	70	6.44	-2	18	22	37	28	22	72	0.56	-0.4	8	6,146	n.	31	s.	26	9	8		
Amarillo.....	3,676	10	49	26.31	30.18	+1.12	25.8	-9.5	65	5.36	-8	17	15	35	21	14	65	0.57	+0.1	6	5,969	nw.	31	sw.	13	19	12		
Del Rio.....	944	64	71	29.15	30.17	+1.11	43.8	-8.5	77	2.7	54	13	23	34	32	39	33	73	0.09	-0.5	4	5,688	se.	38	n.	17	9	13	
Roswell.....	3,566	75	85	26.41	30.13	+0.09	33.2	-6.6	69	6.47	-2	18	20	42	27	20	64	0.26	-0.3	3	4,293	s.	31	w.	13	12	11		
<i>Southern Plateau</i>							39.0	-1.7									60	0.65	0.0							4.4			
El Paso.....	3,778	152	175	26.21	30.06	+0.05	43.8	-1.2	64	5.55	17	18	32	34	35	25	53	0.17	-0.3	4	6,627	nw.	41	sw.	13	16	10		
Santa Fe.....	7,013	38	53	23.16	30.13	+0.04	25.6	-3.2	44	4.35	-2	22	16	28	21	14	64	0.46	-0.2	9	3,736	n.	22	sw.	13	12	7		
Flagstaff.....	6,907	10	59	23.26	29.98	-0.07	27.4	-2.0	50	4.36	-8	21	14	40	23	17	72	0.23	+1.3	12	6,337	nw.	32	s.	10	8	9		
Phoenix.....	1,108	10	107	28.86	30.03	-0.00	52.0	+0.8	75	4.62	30	8	42	34	44	35	60	1.69	+0.9	11	3,424	e.	26	s.	10	9	11		
Yuma.....	141	9	54	29.89	30.04	-0.01	52.8	-1.6	74	4.64	29	9	41	35	44	32	51	0.28	-0.2	5	3,455	n.	22	n.	21	14	13		
Independence.....	3,957	6	27	25.93	30.04	-0.03	35.3	-2.9	62	4.46	12	24	39	28	28	0.65	0.3	7	4	15	12	s.	4	15	12	7.0	0		
<i>Middle Plateau</i>							22.1	-6.1									77	1.74	+0.7							6.1			
Reno.....	4,532	74	81	25.40	30.06	-0.07	27.8	-4.7	55	3.38	-2	8	18	36	25	21	75	1.42	-0.1	14	3,221	se.	33	s.	4	5	16		
Tonopah.....	6,090	12	20				26.6	-1.1	44	28	33	4	13	20	20	23	18	73	0.35		6		se.	31	nw.	19	7	14	10
Winnemucca.....	4,244	18	56	25.59	30.13	-0.03	19.6	-9.0	56	4.30	-21	21	9	37	18	15	82	2.29	+1.3	17	4,924	ne.	5	11	5	11	9.0		
Modena.....	5,473	10	43	24.55	30.07	-0.03	20.4	-6.3	49	3.49	3	33	17	8	43	18	14	80	1.89	+1.0	6	6,265	w.	47	sw.	5	11	5.5	
Salt Lake City.....	4,360	163	203	25.61	30.11	-0.04	23.6	-6.5	52	5.31	21	14	22	16	32	21	16	70	1.38	+0.1	11	4,191	s.	36	s.	5	8	15	
Grand Junction.....	4,602	60	68	25.40	30.12	+0.06	19.2	-4.8	55	5.29	-18	22	10	33	17	13	83	1.73	+1.1	15	2,843	nw.	31	s.	5	7	6.8		
<i>Northern Plateau</i>							15.5	-13.2									77	1.24	-0.4							6.6			
Baker.....	3,471	48	53	26.47	30.23	+0.07	12.0	-12.9	46	4.21	-22	17	3	31	12	8	80	0.86	-0.5	16	3,527	se.	20	sw.	5	4	10		
Boise.....	2,739	78	86	25.30	30.24	+0.05	17.9	-11.9	57	4.26	-17	23	10	25	16	12	78	2.18	+0.4	18	2,870	nw.	25	se.	4	4	7		
Lewiston.....	7,557	40	48	29.41	30.27	+1.11	16.3	-16.2	64	4.24	-17	18	8	30	1.12	0.4	18	886	se.	29	s.	1	7	9					
Pocatello.....	4,477	60	68	25.46	30.19	-0.01	15.4	-9.3	48	5.26	-22	17	5	45	14	9	76	1.32	-0.1	17	5,158	se.	29	s.	4	7	8		
Spokane.....	1,929	101	110	28.10	30.25	+0.13	16.2	-11.3	52	4.24	-8	21	8	28	15	9	71	0.85	-1.3	6	2,972	ne.	22	e.	16	12	6		
Walla Walla.....	991	57	65	29.16	30.28	+0.13	15.1	-17.7	59	4.21	-15	22	9	27	13	10	82	1.13	-0.8	10	2,409	s.	26	w.	4	7	5		
<i>North Pacific Coast Region</i>							30.3	-8.1									76	3.00	(2.3)							6.6			
North Head.....	211	11	56	29.82	30.06	+0.01	33.2	-8.9	50	29	38	18	17	29	14	31	26	73	3.80	-5.0	17	9,426	e.	50	s.	31	10	6	
Port Angeles.....	29	8	53				30.6		54	2	36	13	17	25	23	17	30	24	70	1.89	-2.6	12	4,937	s.	27	n.	19	8	10

TABLE 2.—Data furnished by the Canadian Meteorological Service, January, 1930

Stations	Altitude above mean sea level Jan. 1, 1919	Pressure			Temperature of the air						Precipitation		
		Station reduced to mean of 24 hours	Sea level reduced to mean of 24 hours	Departure from normal	Mean maximum + mean minimum + 2	Departure from normal	Mean maximum	Mean minimum	Highest	Lowest	Total	Departure from normal	Total snowfall
Cape Race, N. F.	99				23.1	31.6	14.5	42	1	2.63		14.3	
Sydney, C. B. I.	48	30.12	30.17	+0.24	20.8	+0.3	30.5	11.1	50	-7	4.98	-0.12	28.0
Halifax, N. S.	88	30.08	30.19	+2.2	24.6	+2.8	32.9	18.4	53	-1	4.91	-0.86	14.3
Yarmouth, N. S.	65	30.06	30.13	+1.13	28.3	+2.0	35.2	21.4	51	6	3.88	-1.28	23.1
Charlottetown, P. E. I.	38	30.07	30.11	+1.15	17.0	0.0	26.0	8.0	48	-13	4.43	+0.47	34.0
Chatham, N. B.	28	30.04	30.08	+1.11	9.9	+0.1	21.4	-1.7	50	-27	2.93	-0.66	22.7
Father Point, Que.	20	30.12	30.15	+1.17	9.2	+1.2	18.0	0.5	46	-12	3.26	+0.41	20.6
Quebec, Que.	296	29.84	30.19	+1.17	13.0	+3.9	19.9	6.1	43	-15	6.71	+2.70	38.8
Doucet, Que.	1,236				-0.2		12.1	-12.4	42	-47	0.25		2.0
Montreal, Que.	187	29.94	30.16	+1.12	17.6	+5.9	25.7	9.6	44	-15	5.26	+1.53	28.8
Ottawa, Ont.	236	29.90	30.19	+1.16	15.5	+5.9	24.3	6.7	45	-20	3.06	+0.07	15.0
Kingston, Ont.	285	29.85	30.19	+1.14	21.3	+4.2	28.0	14.6	45	-15	3.14	-0.31	5.8
Toronto, Ont.	379	29.75	30.18	+1.13	22.8	+1.4	28.9	16.7	47	-4	3.33	+0.41	13.1
Cochrane, Ont.	930				-1.7		7.5	-10.9	35	-30	0.96		9.6
White River, Ont.	1,244	28.08	30.09	+0.08	-5.5	-5.1	9.6	-20.6	35	-47	1.04	-0.65	10.4
London, Ont.	808				19.5		26.2	12.9	44	-9	5.84		19.2
Southampton, Ont.	656	29.38	30.13	+1.10	19.9	-0.5	25.6	14.2	48	-9	4.61	+0.56	34.2
Parry Sound, Ont.	688	29.40	30.14	+1.13	15.3	+1.5	22.4	8.3	40	-26	7.32	+3.24	62.1
Port Arthur, Ont.	644	29.41	30.18	+1.11	2.4	-0.7	10.9	-6.2	36	-28	0.68	-0.14	6.8
Winnipeg, Man.	760												
Minnedosa, Man.	1,690	28.27	30.24	+1.14	-7.8	-0.6	1.2	-16.7	27	-44	0.16	-0.64	1.6
Le Pas, Man.	860				-13.4		-4.7	-22.1	23	-44	0.40		4.0
Qu'Appelle, Sask.	2,115	27.82	30.25	+1.17	-7.8	-4.0	-0.5	-15.0	16	-44	0.30	-0.20	3.0
Moose Jaw, Sask.	1,759				-4.7		3.7	-13.1	27	-37	0.20		2.0
Swift Current, Sask.	2,392	27.52	30.24	+1.15	-2.4	-5.5	4.4	-9.1	26	-38	0.39	-0.25	3.9
Medicine Hat, Alb.	2,144												
Calgary, Alb.	3,428												
Banff, Alb.	4,521												
Prince Albert, Sask.	1,460	28.62	30.34	+1.25	-10.0	-1.6	-0.6	-19.5	21	-56	0.45	-0.52	4.5
Battleford, Sask.	1,592	28.44	30.33	+1.25	-7.1	-1.2	0.7	-14.9	22	-50	0.32	-0.08	3.2
Edmonton, Alb.	2,150												
Kamloops, B. C.	1,262												
Victoria, B. C.	230	29.85	30.11	+1.14	32.0	-6.5	36.0	28.1	47	16	1.10	-4.29	1.8
Barkerville, B. C.	4,180												
Estevan Point, B. C.	20												
Prince Rupert, B. C.	170												
Hamilton, Ber.	151												

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Father Point, Que.	20	30.00	30.03	+1.08	11.2	-4.2	17.7	4.6	35	-11	3.66	+0.83	36.6
Quebec, Que.	296	29.72	30.06	+1.05	13.6	-1.6	18.7	8.5	35	-11	4.11	+0.42	40.3
Kingston, Ont.	235	29.72	30.06	+1.02	21.6	-2.1	27.3	16.0	39	-6	1.91	-1.33	17.1
Winnipeg, Man.	760	29.24	30.14	+1.12	3.9	-0.2	10.6	-2.8	40	-28	1.45	+0.54	14.3
Medicine Hat, Alb.	2,144	27.66	30.02	+1.05	17.1	-1.1	25.0	9.2	50	-27	0.29	-0.26	2.9
Edmonton, Alb.	2,150	27.63	30.04	+1.11	8.9	-4.2	16.5	1.3	43	-28	0.98	+0.28	9.5
Kamloops, B. C.	1,262	28.75	30.08	+1.14	25.7	-3.2	30.1	21.4	54	-4	0.92	+0.14	8.5
Estevan Point, B. C.	20				41.2		45.5	36.8	50	28	12.57		5.4
Prince Rupert, B. C.	170				34.4		38.4	30.4	49	10	8.62		2.4

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